

Commissioner for Patents
Serial No. : 10/714,401

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (cancelled)

2. (previously presented) The method as claimed in claim 16, wherein said sending a first request from the client computer to the shared storage medium comprises sending a null-valued version number when said selected data element is not stored on said client computer, and wherein said sending of one of a first reply and a second reply comprises sending to said client computer a copy of the selected data element and a respective version number for storage on said client computer.

3. (previously presented) The method as claimed in claim 16, wherein said first request contains an address range defining said selected data element on said shared medium.

4. (original) The method as claimed in claim 3, wherein said address range comprises non-contiguous storage blocks.

5. (previously presented) The method as claimed in claim 16, wherein said client computer communicates with said shared medium through a network block device driver.

6. (previously presented) The method as claimed in claim 16, wherein said shared medium is a server memory storage space.

7. to 15. (cancelled)

16. (previously presented) A method for executing a common task in a clustered computing environment comprising a plurality of computers interconnected to collaborate on said common task, said plurality of computers including at least a client computer and a shared storage medium storing common data, the method comprising:

Commissioner for Patents
Serial No. : 10/714,401

- maintaining, at the shared storage medium, a main list including information identifying data elements stored in the shared storage medium and a respective version number of each data element;
- maintaining, at each client computer, a local list containing, for each one of the data elements previously accessed from the shared storage medium, information identifying a corresponding original data element in the shared storage medium and a respective current version number of the data element stored in the client computer;
- when an application executing on a given client computer attempts to modify a selected data element, sending a first request from the client computer to the shared storage medium, the first request including the information identifying the selected data element and the respective current version number;
- upon receipt of the first request by the shared storage medium, matching the current version number received from the client computer with the respective version number in the main list;
- based on the matching, sending to the client computer one of: a first reply including a confirmation that the current data version of the selected data element is valid when the current version number received from the client computer matches the version number associated with the data element in the main list; and a second reply including a new copy of the selected data element and a respective new version number when the version number received from the client computer does not match the version number in the main list; and
- upon receipt of the first reply from the shared storage medium, executing the common task at the client computer using the data element stored in the client computer;
- upon receipt of the second reply, modifying the data element stored in the client computer to correspond to the new copy received from the shared storage medium prior to executing the common task;

Commissioner for Patents
Serial No. : 10/714,401

modifying the data element stored in the client computer as part of executing the common task to create a modified data element; and

modifying the selected data element on the shared storage medium based on the modified data element.

17. to 22. (cancelled)